

CLAIMS

- [1] A waterproof terminal block unit characterized by comprising:
- a terminal block having one surface provided with one or more terminals for connecting a lead member,
 - an insulating plate attached to said one surface of said terminal block and having a first through-hole at a portion corresponding to a portion including said one or more terminals and its surrounding region, said first through-hole reaching from a surface contacting said one surface to an opposite surface, and
 - a metal plate attached to said opposite surface of said insulating plate and having one or more second through-holes at a portion corresponding to said one or more terminals, said one or more second-through-holes reaching from a surface contacting said insulating plate to an opposite surface,
- wherein said lead member is brought out to a side of said opposite surface of said metal plate through said first and second through-holes, and
- said first and second through-holes are sealed by adhesive filled therein.
- [2] A waterproof terminal block unit according to claim 1, characterized in that the adhesive is also interposed between said terminal block and said insulating plate and between said insulating plate and said metal plate.
- [3] A waterproof terminal block unit according to claim 1, characterized in that a projecting portion is provided on the side of said opposite surface of said metal plate and has a communication hole continuous with said second through-hole, and the adhesive is also filled in said communication hole of said projecting portion.

- [4] A waterproof terminal block unit according to claim 2, characterized in that a projecting portion is provided on the side of said opposite surface of said metal plate and has a communication hole continuous with said second through-hole, and the adhesive is also filled in said communication hole of said projecting portion.
- [5] A waterproof terminal block unit according to claim 1, characterized by comprising a plurality of bolts for integrating said terminal block, said insulating plate, and said metal plate.
- [6] A waterproof terminal block unit according to claim 2, characterized by comprising a plurality of bolts for integrating said terminal block, said insulating plate, and said metal plate.
- [7] A waterproof terminal block unit according to claim 4, characterized by comprising a plurality of bolts for integrating said terminal block, said insulating plate, and said metal plate.
- [8] A waterproof terminal block unit according to claim 1, characterized in that a main part of said terminal block except said one or more terminals is made of a resin and said insulating plate is made of a material having a linear expansion coefficient between a linear expansion coefficient of said terminal block and a linear expansion coefficient of said metal plate.
- [9] A waterproof terminal block unit according to claim 2, characterized in that a main part of said terminal block except said one or more terminals is made of a resin and said insulating plate is made of a material having a linear expansion coefficient between a linear expansion coefficient of said terminal block and a linear expansion coefficient of said metal plate.
- [10] A waterproof terminal block unit according to claim 4, characterized in that a main part of said terminal block except said one

or more terminals is made of a resin and said insulating plate is made of a material having a linear expansion coefficient between a linear expansion coefficient of said terminal block and a linear expansion coefficient of said metal plate.

[11] A waterproof terminal block unit according to claim 7, characterized in that a main part of said terminal block except said one or more terminals is made of a resin and said insulating plate is made of a material having a linear expansion coefficient between a linear expansion coefficient of said terminal block and a linear expansion coefficient of said metal plate.

[12] A waterproof terminal block unit according to any of claims 1 to 11, characterized in that said waterproof terminal block unit is adapted to be attached to a casing having a coil therein and configured to cool said coil by a coolant, to thereby carry out electrical connection between said coil and an external circuit outside said casing, and

said waterproof terminal block unit is detachably attached to said casing through a sealing interposed between said opposite surface of said metal plate and said casing.